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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
09/979,575	11/06/2001	Paul J. Biermann	1550-SPL	5943	
7590 03/26/2004			EXAM	EXAMINER	
Francis A Cooh			FOELAK, MORTON		
	kins University				
Applied Physics Laboratory			ART UNIT	PAPER NUMBER	
11100 Johns Hopkins Road			1711		
Laurel, MD 20723-6099					

DATE MAILED: 03/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
	09/979,575	BIERMANN ET AL.
Office Action Summary	Examiner	Art Unit
	Morton Foelak	1711
The MAILING DATE of this communication app Period for Reply	ears on the cover sheet with the c	orrespondence address
A SHORTENED STATUTORY PERIOD FOR REPLY THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply If NO period for reply is specified above, the maximum statutory period v - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	36(a). In no event, however, may a reply be timed within the statutory minimum of thirty (30) day will apply and will expire SIX (6) MONTHS from a cause the application to become ABANDONE	nely filed s will be considered timely. the mailing date of this communication. D (35 U.S.C. § 133).
Status		
1)☐ Responsive to communication(s) filed on 2a)☐ This action is FINAL . 2b)☑ This 3)☐ Since this application is in condition for allower closed in accordance with the practice under E	action is non-final. nce except for formal matters, pro	
Disposition of Claims	• ,	
4) Claim(s) 1-48 is/are pending in the application 4a) Of the above claim(s) 15-44 is/are withdraw 5) Claim(s) is/are allowed. 6) Claim(s) 1-14 and 45-48 is/are rejected. 7) Claim(s) is/are objected to. 8) Claim(s) are subject to restriction and/o	n from consideration.	
Application Papers		
9) The specification is objected to by the Examine 10) The drawing(s) filed on is/are: a) accomposed and all accomposed and all all all all all all all all all al	epted or b) objected to by the drawing(s) be held in abeyance. Section is required if the drawing(s) is ob	e 37 CFR 1.85(a). jected to. See 37 CFR 1.121(d).
Priority under 35 U.S.C. § 119		
 12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of: 1. Certified copies of the priority document 2. Certified copies of the priority document 3. Copies of the certified copies of the priority application from the International Bureau * See the attached detailed Office action for a list 	s have been received. s have been received in Applicati rity documents have been receive u (PCT Rule 17.2(a)).	on No ed in this National Stage
*	*	
Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date	4) Interview Summary Paper No(s)/Mail D: 5) Notice of Informal F 6) Other:	

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DETAILED ACTION

1. Applicant's election without traverse of the Restriction
Requirement in the response of Aug. 13, 2003 is acknowledged. Claims
15-44 stand withdrawn from further consideration and the
Requirement IS made FINAL.

Claim Rejections - 35 USC § 103

- 2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 3. Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arens et al, Kagoshima et al, of record, EPA 0 500 009 Al, cited by applicants, and the Morehouse, Jr. et al patent, newly cited.
- 4. Patentees all disclose a plurality of cured resinous cells in contact with at least one other cell.

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5. Arens can either encapsulate liquids col. 2 lines 31-51, solids col. 3 lines 63 to col. 4 line12; Kagoshima et al and the EPA patent encapsulate either solid inorganic or organic foaming agents in their curable resinous polymer col. 4 lines16-29 of the US patent; and Morehouse Jr. can both encapsulate volatile liquid foaming agents in resinous microspheres or after the foaming agents are heated to foam the microspheres said microspheres are hollow.

- 6. Since all the resins employed are curable and in col. 18 lines 25-28 Morehouse Jr. et al can use cross linking di-unsaturated monomers in formulating the coating of their microspheres they too have cured resinous hollow and liquid microspheres.
- 7. The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:
 - Determining the scope and contents of the prior art.
 - 2. Ascertaining the differences between the prior art and the claims at issue.
 - 3. Resolving the level of ordinary skill in the pertinent art.
 - 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Morton Foelak whose telephone number is (571) 272-1071. The examiner can normally be reached on Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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M.F.

March 8, 2004

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Morton Foelak

Primary Examiner

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